In the Claims:

The following listing of claims replaces all prior listings of claims in the application:

1. (Original) A method of turbo-charger surge detection comprising:

measuring a rate of air flow through a turbo-charger compressor;

measuring a temperature of said air flow;

calculating a standard mass flow rate of said air flow at said rate and said temperature;

measuring a pressure ratio across said turbo-charger compressor;

calculating a surge mass flow rate at a surge line of said compressor at said pressure ratio;

comparing said standard mass flow rate to said surge mass flow rate; and

reducing an EGR flow if said standard mass flow rate is lower than said surge mass flow rate.

2. (Original) The method of turbo-charger surge detection of claim 1, comprising further:

adding a surge margin to said surge mass flow rate.

3. (Original) The method of turbo-charger surge detection of claim 1, comprising further:

reducing said pressure ratio by opening a vane of said compressor.

4. (Currently Amended) A method of turbo-charger surge detection comprising:

measuring a rate of air flow through a turbo-charger compressor;

measuring a temperature of said air flow;

calculating a standard mass flow rate of said air flow at said rate and said temperature;

measuring a pressure ratio across said turbo-charger compressor;

calculating a surge mass flow rate at a surge line of said compressor at said pressure ratio;

comparing said standard mass flow rate to said surge mass flow rate; and

reducing said pressure ratio by opening a vane of said compressor and reducing an EGR flow if said standard mass flow rate is lower than said surge mass flow rate.

5. (Original) The method of turbo-charger surge detection of claim 4, comprising further:

adding a surge margin to said surge mass flow rate.

6. Cancelled.

7. Cancelled.

8. Cancelled.

9. Cancelled.

10. Cancelled.